CLAIM AMENDMENT

Claims 1-156 (canceled).

157. (currently amended) A method of producing a modulated beam of visible light in which the brightness of the image increases as the distance from the projector lens to a screen increases up to a distance of approximately 10 feet, comprising:

[a] producing a beam of electromagnetic energy ~~from a light source~~;

[b] separating the beam of electromagnetic energy ~~from the light source~~ into a plurality of separate electromagnetic energy beams ~~without previously discarding half of the beam of electromagnetic energy~~, each of the separate electromagnetic energy beams having a predetermined orientation of electromagnetic wave field vector;

[c] absorbing a portion of electromagnetic energy of at least one of the plurality of separate electromagnetic energy beams at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[~~c~~d] passing a plurality of portions of each separated electromagnetic energy beam through a respective one of a plurality of means for changing the orientation of the electromagnetic wave field vector in a single direction whereby the orientation of electromagnetic wave field vector of the plurality of portions of the electromagnetic energy beams is altered as same passes through the respective one of the plurality of means for changing the orientation of electromagnetic wave field vector;

[~~d~~e] combining more than two separated electromagnetic energy beams into a single collinear beam of electromagnetic energy without previously subcombining any plurality of the separated electromagnetic energy beams;

[~~e~~f] locating a projection means such that the distance of the light path between the projection means and each of the plurality of means for changing the orientation of the electromagnetic wave field vector is substantially equal;

[~~f~~g] passing at least a portion of the single collinear beam of electromagnetic energy to the projection means;

[~~g~~h] locating a surface means up to approximately 10 feet of the projection means; and

[~~h~~i] passing the at least a portion of the single collinear beam of electromagnetic energy from the projection means to the surface means.

Claims 158-438 (canceled).

439. (new) A method of displaying an image, comprising:

[a] providing an illumination subsystem including producing a primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, and a substantially uniform flux intensity substantially across the initial beam of light;

[b] providing a modulation subsystem, including;

[i] converting the randomly changing orientations of a chosen component of electric field vectors of said primary beam into substantially the same predetermined orientation of a chosen component of electric field vectors;

[ii] separating the primary beam of light having the same predetermined orientation of a chosen component of electric field vectors into two or more primary color beams of light, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beams;

[iii] providing two or more altering means for changing the selected predetermined orientation of a chosen component of electric field vectors;

[iv] absorbing a portion of electromagnetic energy of at least one of the two or more primary color beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[v] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of light by passing each of the separate primary color beam or beams of light through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the

plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[vi] combining more than two altered separate primary color beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of any of the more than two altered separate beams of light;

[vii] resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another;

[c] providing a projection subsystem and passing at least one of the resolved beams of light thereto; and

[d] [i] forming a first light path from the illumination subsystem to the altering means in which the first light path is equal for all altering means; and

[ii] forming a second light path from each of the altering means to the projection subsystem in which the second light path is equal for all altering means.

440. (new) A method as described in claim 439 wherein step [a] includes forming the primary beam of light further having a rectangular cross sectional area.

441. (new) A display system, comprising:

[a] an illumination subsystem including means for producing a primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, and a substantially uniform flux intensity substantially across the initial beam of light;

[b] a modulation subsystem, including;

[i] means for converting the randomly changing orientations of a chosen component of electric field vectors of said primary beam into substantially the same predetermined orientation of a chosen component of electric field vectors;

[ii] means for separating the primary beam of light having the same predetermined orientation of a chosen component of electric field vectors into two or

more primary color beams of light, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beams;

[iii] two or more altering means for changing the selected predetermined orientation of a chosen component of electric field vectors;

[iv] means for absorbing a portion of electromagnetic energy of at least one of the two or more primary color beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[v] means for passing each of the separate primary color beams of light through a respective one of the altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[vi] means for combining more than two altered separate primary color beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of any of the more than two altered separate beams of light;

[vii] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another;

[c] a projection subsystem and means for passing at least one of the resolved beams from the single collinear beam of light thereto;

[d] [i] each altering means being disposed at a first path length from the illumination subsystem, the first path length being equal for each of the altering means; and

[ii] each of the altering means being disposed at a second path length from the projection subsystem, the second path length being equal for each of the altering means.

442. (new) A system as described in claim 441 wherein the means for producing the primary beam of light further having a rectangular cross sectional area.

443. (new) A method for displaying an image projected from a liquid crystal device which includes a first liquid crystal light valve, a second liquid crystal light valve and a third liquid crystal light valve, comprising:

[a] producing a primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, and a substantially uniform flux intensity substantially across the initial beam of light;

[b] separating the primary beam of light into two or more primary color beams of light, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beam or beams;

[c] forming optical light paths between the light source and the three liquid crystal light valves which are unequal in length and based on luminous intensity of the primary colors associated with respective light valve produced by the light source;

[d] absorbing a portion of electromagnetic energy of at least one of the two or more primary color beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[e] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of light by passing each of the separate primary color beams of light through a respective one of the liquid crystal light valves in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the liquid crystal

light valves altering the selected predetermined orientation of the chosen component of the electric field vectors;

[f] combining the altered separate primary color beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light;

[g] resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[h] passing at least one of the resolved beams from the single collinear beam of light to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

444. (new) A system for displaying an image projected from a liquid crystal device which includes means for a first liquid crystal light valve, a second liquid crystal light valve and a third liquid crystal light valve, comprising:

[a] means for producing a primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen component of electric field vectors, and a substantially uniform flux intensity substantially across the initial beam of light;

[b] means for separating the primary beam of light into two or more primary color beams of light, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beams;

[c] means for forming the optical light paths between the light source and the three liquid crystal light valves which are unequal in length and based on luminous intensity of the primary colors associated with respective light valve produced by the light source;

[d] means for absorbing a portion of electromagnetic energy of at least one of the two or more primary color beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[e] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of light by passing each of the separate primary color beams of light through a respective one of the liquid crystal light valves in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the liquid crystal light valves altering the selected predetermined orientation of the chosen component of the electric field vectors;

[f] means for combining the altered separate primary color beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light;

[g] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[h] means for passing at least one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

445. (new) A projection-type color display device, comprising:

[a] means for producing a collimated primary beam of light having a predetermined range of wavelengths, randomly changing orientations of a chosen

component of electric field vectors, a substantially uniform flux intensity substantially across the initial beam of light, and a rectangular cross sectional area;

[b] means for separating the collimated primary beam of light into the primary color beams of red, blue and green, each of the primary color beams having the same selected predetermined orientation of a chosen component of electric field vectors as that of the other primary color beams;

[c] means for absorbing a portion of electromagnetic energy of at least one of the two or more primary color beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[d] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate primary color beams of red, blue and green by passing each of the separate primary color beams of red, blue and green through a respective one of a plurality of liquid crystal light valves in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate primary color beams of red, blue and green is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate primary color beams of light passes through the respective one of the liquid crystal light valves altering the selected predetermined orientation of the chosen component of the electric field vectors;

[e] means for combining the altered separate primary color beams into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of red, blue and green by passing the altered separate primary color beams through a color synthesis cube having a reflecting surface for synthesizing the red, blue and green beams into a single collinear beam of light;

[f] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[g] means for passing at least one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

446. (new) A method of producing one or more collinear beams of electromagnetic energy, comprising:

[a] producing two or more separate beams of electromagnetic energy, each of the separate beams of electromagnetic energy having the same selected predetermined orientation of a chosen component of electromagnetic wave field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of electromagnetic energy;

[b] absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of electromagnetic energy at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[c] altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[d] combining the altered separate beams of electromagnetic energy into a single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy;

[e] resolving from the single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors are different from one another; and

[f] passing one of the resolved beams to a projection means, the projection means receiving only electromagnetic energy having substantially the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

447. (new) A method as described in claim 446 wherein step

[a] includes producing each separate beam of electromagnetic energy further having a rectangular cross sectional area.

448. (new) A method as described in claim 446 further comprising the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

449. (new) A method as described in claim 448 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

450. (new) A method as described in claim 448 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the magnitude of at least one of the separate beams of electromagnetic energy.

451. (new) A method of producing one or more collinear beams of light, comprising:

[a] producing two or more separate beams of light, each of the separate beams of light having the same selected predetermined orientation of a chosen component of electric field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of light;

[b] absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[c] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing each of the separate beams of light through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[d] combining the altered separate beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light;

[e] resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[f] passing one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

452. (new) A method as described in claim 451 wherein step [a] includes producing

each separate beam of light further having a rectangular cross sectional area.

453. (new) A method as described in claim 451 further comprising the step of adjusting the light spectrum of at least one of the separate beams of light.

454. (new) A method as described in claim 453 wherein the step of adjusting the light spectrum of at least one of the separate beams of light includes adjusting a predetermined range of wavelengths of at least one of the separate beams of light.

455. (new) A method as described in claim 453 wherein the step of adjusting the light spectrum of at least one of the separate beams of light includes adjusting the magnitude of at least one of the separate beams of light.

456. (new) A system of producing one or more collinear beams of electromagnetic energy, comprising:

[a] means for producing two or more separate beams of electromagnetic energy, each of the separate beams of electromagnetic energy having a same selected predetermined orientation of a chosen component of electromagnetic wave field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of electromagnetic energy;

[b] means for absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of electromagnetic energy at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[c] means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected

predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[d] means for combining the altered separate beams of electromagnetic energy into a single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy;

[e] means for resolving from the single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors are different from one another; and

[f] means for passing one of the resolved beams to a projection means, the projection means receiving only electromagnetic energy having substantially the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

457. (new) A system as described in claim 456 in which the means for providing two or more separate beams of electromagnetic energy includes means for producing each separate beam of electromagnetic energy having a rectangular cross sectional area.

458. (new) A system as described in claim 456 further comprising means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

459. (new) A system as described in claim 458 in which the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

460. (new) A system as described in claim 458 in which the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a magnitude of at least one of the separate beams of electromagnetic energy.

461. (new) A system of producing one or more collinear beams of light, comprising:

[a] means for producing two or more separate beams of light, each of the separate beams of light having a same selected predetermined orientation of a chosen component of electric field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of light;

[b] means for absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[c] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing each of the separate beams of light through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[d] means for combining the altered separate beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light;

[e] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected

predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[f] means for passing one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

462. (new) A system as described in claim 461 in which the means for producing two or more separate beams of light includes means for producing each separate beam of light having a rectangular cross sectional area.

463. (new) A system as described in claim 461 further comprising means for adjusting the light spectrum of at least one of the separate beams of light.

464. (new) A system as described in claim 463 in which the means for adjusting the light spectrum of at least one of the separate beams of light includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of light.

465. (new) A system as described in claim 463 in which the means for adjusting the light spectrum of at least one of the separate beams of light includes means for adjusting the magnitude of at least one of the separate beams of light.

466. (new) A method of producing a collinear beam of electromagnetic energy having two constituent parts, comprising:

[a] providing a substantially collimated primary beam of electromagnetic energy having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electromagnetic wave field vectors;

[b] resolving the substantially collimated primary beam of electromagnetic energy into a substantially collimated primary first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors and a substantially collimated primary second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors;

[c] separating each of the substantially collimated primary resolved beams of electromagnetic energy into two or more substantially collimated separate beams of electromagnetic energy, each of the substantially collimated separate beams of electromagnetic energy having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[d] absorbing a portion of electromagnetic energy of at least one of the two or more substantially collimated separate beams of electromagnetic energy at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[e] altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the substantially collimated separate beams of electromagnetic energy by passing each of the substantially collimated separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the substantially collimated separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the substantially collimated separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[f] [i] combining the substantially collimated altered separate beams of electromagnetic energy of the primary first resolved beam of electromagnetic energy into a first substantially collimated single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the substantially collimated separate beams of electromagnetic energy, and

[ii] combining the substantially collimated altered separate beams of electromagnetic energy of the primary second resolved beam of electromagnetic energy into a second substantially collimated single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of

portions of each of the substantially collimated separate beams of electromagnetic energy;

[g] [i] resolving from the first substantially collimated single collinear beam of electromagnetic energy a substantially collimated first resolved beam of electromagnetic energy having substantially the first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a substantially collimated second resolved beam of electromagnetic energy having substantially the second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] resolving from the second substantially collimated single collinear beam of electromagnetic energy a substantially collimated first resolved beam of electromagnetic energy having substantially the first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a substantially collimated second resolved beam of electromagnetic energy having substantially the second selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[h] merging one of the resolved beams of electromagnetic energy from the first substantially collimated single collinear beam of electromagnetic energy with one of the other resolved beams of electromagnetic energy from the second substantially collimated single collinear beam of electromagnetic energy into a substantially collimated third single collinear beam of electromagnetic energy; and

[i] projecting said third single collinear beam of electromagnetic energy onto a projection screen, said third single collinear beam of electromagnetic energy being viewable as a three-dimensional image.

467. (new) A method as described in claim 466 wherein step [b] further includes resolving the primary beam into first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors has the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors as that of the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

468. (new) A method as described in claim 466 wherein step [b] further includes

resolving the primary beam into first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors has the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors different from the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

469. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which each merged beam has its plurality of portions parallel and noncoincident to the plurality of portions as that of the other merged beam.

470. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which each merged beam has its plurality of portions parallel and partially coincident to the plurality of portions as that of the other merged beam.

471. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which each merged beam has its plurality of portions parallel and simultaneous to the plurality of portions as that of the other merged beam.

472. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam.

473. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and noncoincident to the plurality of portions as that of the other

merged beam.

474. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and partially coincident to the plurality of portions as that of the other merged beam.

475. (new) A method as described in claim 466 wherein step [h] further includes merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and simultaneous to the plurality of portions as that of the other merged beam.

476. (new) A method of producing a collinear beam of light having two constituent parts, comprising:

[a] providing a substantially collimated primary beam of light having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electric field vectors;

[b] resolving the substantially collimated primary beam of light into a substantially collimated primary first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of the electric field vectors and a substantially collimated primary second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of the electric field vectors;

[c] separating each of the substantially collimated primary resolved beams of light into two or more substantially collimated separate beams of light, each of the substantially collimated separate beams of light having a selected predetermined orientation of a chosen component of electric field vectors;

[d] absorbing a portion of electromagnetic energy of at least one of the two or more substantially collimated separate beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[e] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the substantially collimated separate beams of light by passing each of the substantially collimated separate beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the substantially collimated separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the substantially collimated separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[f] [i] combining the substantially collimated altered separate beams of light of the primary first resolved beam of light into a first substantially collimated single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the substantially collimated separate beams of light, and

[ii] combining the substantially collimated altered separate beams of light of the primary second resolved beam of light into a second substantially collimated single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the substantially collimated separate beams of light;

[g] [i] resolving from the first substantially collimated single collinear beam of light a substantially collimated first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a substantially collimated second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] resolving from the second substantially collimated single collinear beam of light a substantially collimated first resolved beam of light having

substantially a first selected predetermined orientation of a chosen component of electric field vectors and a substantially collimated second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors;

[h] merging one of the resolved beams of light from the first substantially collimated single collinear beam of light with one of the other resolved beams of light from the second substantially collimated single collinear beam of light into a substantially collimated third single collinear beam of light; and

[i] projecting said third single collinear beam of onto a projection screen, said third single collinear beam of light being viewable as a three-dimensional image.

477. (new) A method as described in claim 476 wherein step [b] further includes resolving the primary beam in which the first selected predetermined orientation of the chosen component of the electric field vectors has the same selected predetermined orientation of the chosen component of the electric field vectors as that of the second selected predetermined orientation of the chosen component of the electric field vectors.

478. (new) A method as described in claim 476 wherein step [b] further includes resolving the primary beam in which the first selected predetermined orientation of the chosen component of the electric field vectors has the selected predetermined orientation of the chosen component of the electric field vectors different from the second selected predetermined orientation of the chosen component of the electric field vectors.

479. (new) A method as described in claim 476 wherein step [h] further includes each merged beam having its plurality of portions parallel and noncoincident to the plurality of portions as that of the other merged beam.

480. (new) A method as described in claim 476 wherein step [h] further includes resolving the primary beam in which each merged beam has the plurality of portions parallel and partially coincident to the plurality of portions of the other merged beam.

481. (new) A method as described in claim 476 wherein step [h] further includes

resolving the primary beam in which each merged beam has its plurality of portions parallel and simultaneous to the plurality of portions of the other merged beam.

482. (new) A method as described in claim 476 wherein step [h] further includes resolving the primary beam in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam.

483. (new) A method as described in claim 476 wherein step [h] further includes resolving the primary beam in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and noncoincident to the plurality of portions of the other merged beam.

484. (new) A method as described in claim 476 wherein step [h] further includes resolving the primary beam in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and partially coincident to the plurality of portions of the other merged beam.

485. (new) A method as described in claim 476 wherein step [h] further includes resolving the primary beam in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and simultaneous to the plurality of portions of the other merged beam.

486. (new) A method as described in claim 476 wherein step [a] includes producing an initial beam of ultraviolet.

487. (new) A system of producing a collinear beam of electromagnetic energy having two constituent parts, comprising:

[a] means for providing a substantially collimated primary beam of electromagnetic energy having a predetermined range of wavelengths and having randomly changing orientations of a chosen component of electromagnetic wave field vectors;

[b] means for resolving the substantially collimated primary beam of electromagnetic energy into a substantially collimated primary first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors and a substantially collimated primary second resolved beam of electromagnetic energy having substantially a second elected predetermined orientation of a chosen component of the electromagnetic wave field vectors;

[c] means for separating each of the substantially collimated primary resolved beams of electromagnetic energy into two or more substantially collimated separate beams of electromagnetic energy, each of the substantially collimated separate beams of electromagnetic energy having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[d] means for absorbing a portion of electromagnetic energy of at least one of the two or more substantially collimated separate beams of electromagnetic energy at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[e] means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the substantially collimated separate beams of electromagnetic energy by passing each of the substantially collimated separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the substantially collimated separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the substantially collimated separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[f] [i] means for combining the substantially collimated altered separate beams of electromagnetic energy of the primary first resolved beam of electromagnetic energy into a first substantially collimated single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the substantially collimated separate beams of electromagnetic energy, and

[ii] means for combining the substantially collimated altered separate beams of electromagnetic energy of the primary second resolved beam of electromagnetic energy into a second substantially collimated single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the substantially collimated separate beams of electromagnetic energy;

[g] [i] means for resolving from the first substantially collimated single collinear beam of electromagnetic energy a substantially collimated first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a substantially collimated second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] means for resolving from the second substantially collimated single collinear beam of electromagnetic energy a substantially collimated first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a substantially collimated second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[h] means for merging one of the resolved beams of electromagnetic energy from the first substantially collimated single collinear beam of electromagnetic energy with one of the other resolved beams of electromagnetic energy from the second substantially collimated single collinear beam of electromagnetic energy into a substantially collimated third single collinear beam of electromagnetic energy; and

[i] means for projecting said third single collinear beam of electromagnetic energy onto a projection screen, said third single collinear beam of electromagnetic energy being projectable as a three-dimensional image.

488. (new) A system as described in claim 487 wherein the means for resolving the substantially collimated primary beam includes means for resolving the substantially collimated primary beam into substantially collimated primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the first resolved beam has the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors as that of the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the second resolved beam.

489. (new) A system as described in claim 487 wherein the means for resolving the substantially collimated primary beam includes means for resolving the substantially collimated primary beam into substantially collimated primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the first resolved beam has the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors different from the second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the second resolved beam.

490. (new) A system as described in claim 487 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which each merged beam has its plurality of portions parallel and noncoincident to the plurality of portions of the other merged beam.

491. (new) A system as described in claim 487 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which each merged beam has its plurality of portions parallel and partially coincident to the plurality of portions of the other merged beam.

492. (new) A system as described in claim 487 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which each merged beam has its plurality of portions parallel and simultaneous to the plurality of portions of the other merged beam.

493. (new) A system as described in claim 487 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam.

494. (new) A system as described in claim 487 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam and each merged beam has its plurality of portions parallel and noncoincident to the plurality of portions of the other merged beam.

495. (new) A system as described in claim 487 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electromagnetic wave field vectors as that of the plurality of portions of the other merged beam and each merged beam has its plurality of portions parallel and partially coincident to the plurality of portions of the other merged beam.

496. (new) A system of producing a collinear beam of light having two constituent parts, comprising:

[a] means for providing a substantially collimated primary beam of light having a predetermined range of wavelengths and having randomly changing orientations of a chosen component of electric field vectors;

[b] means for resolving the substantially collimated primary beam of light into a substantially collimated primary first resolved beam of light having

substantially a first selected predetermined orientation of a chosen component of the electric field vectors and a substantially collimated primary second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of the electric field vectors;

[c] means for separating each of the substantially collimated primary resolved beams of light into two or more substantially collimated separate beams of light, each of the substantially collimated separate beams of light having a selected predetermined orientation of a chosen component of electric field vectors;

[d] means for absorbing a portion of electromagnetic energy of at least one of the two or more substantially collimated separate beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[e] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the substantially collimated separate beams of light by passing each of the substantially collimated separate beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the substantially collimated separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the substantially collimated separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[f] [i] means for combining the substantially collimated altered separate beams of light of the primary first resolved beam of light into a first substantially collimated single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the substantially collimated separate beams of light, and

[ii] means for combining the substantially collimated altered separate beams of light of the primary second resolved beam of light into a second substantially collimated single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric

field vectors of the plurality of portions of each of the substantially collimated separate beams of light;

[g] [i] means for resolving from the first substantially collimated single collinear beam of light a substantially collimated first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a substantially collimated second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] means for resolving from the second substantially collimated single collinear beam of light a substantially collimated first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a substantially collimated second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors;

[h] means for merging one of the resolved beams of light from the first substantially collimated single collinear beam of light with one of the other resolved beams of light from the second substantially collimated single collinear beam of light into a substantially collimated third single collinear beam of light; and

[i] means for projecting said third single collinear beam of light onto a projection screen, said third single collinear beam of light being viewable as a three-dimensional image.

497. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and each merged beam has its plurality of portions parallel and simultaneous to the plurality of portions of the other merged beam.

498. (new) A system as described in claim 496 wherein the means for resolving the substantially collimated primary beam includes means for resolving the substantially collimated primary beam into substantially collimated primary first and second resolved beams in which the first selected predetermined orientation of the chosen

component of the electric field vectors of the first resolved beam has the same selected predetermined orientation of the chosen component of the electric field vectors as that of the second selected predetermined orientation of the chosen component of the electric field vectors of the second resolved beam.

499. (new) A system as described in claim 496 wherein the means for resolving the substantially collimated primary beam includes means for resolving the substantially collimated primary beam into substantially collimated primary first and second resolved beams in which the first selected predetermined orientation of the chosen component of the electric field vectors of the first resolved beam has the selected predetermined orientation of the chosen component of the electric field vectors different from the second selected predetermined orientation of the chosen component of the electric field vectors of the second resolved beam.

500. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which each merged beam has its plurality of portions parallel and noncoincident to the plurality of portions of the other merged beam.

501. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which each merged beam has its plurality of portions parallel and partially coincident to the plurality of portions of the other merged beam.

502. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which each merged beam has its plurality of portions parallel and simultaneous to the plurality of portions of the other merged beam.

503. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam.

504. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and each merged beam has its plurality of portions parallel and noncoincident to the plurality of portions of the other merged beam.

505. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and each merged beam has its plurality of portions parallel and partially coincident to the plurality of portions of the other merged beam.

506. (new) A system as described in claim 496 wherein the means for merging of the resolved beams includes means for merging of the resolved beams in which the plurality of portions of one of the merged beams has a substantially different selected predetermined orientation of a chosen component of electric field vectors as that of the plurality of portions of the other merged beam and further includes each merged beam having its plurality of portions parallel and simultaneous to the plurality of portions as that of the other merged beam.

507. (new) A system as described in claim 487 wherein the means for providing a substantially collimated primary beam includes providing an initial beam of ultraviolet.

508. (new) A method of producing a modulated beam of electromagnetic energy, comprising:

[a] providing a primary beam of electromagnetic energy having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electromagnetic wave field vectors;

[b] resolving the primary beam of electromagnetic energy into a primary first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors and a primary second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors;

[c] rotating the second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors of the primary second resolved beam of electromagnetic energy to be substantially the same as the first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors of the primary first resolved beam of electromagnetic energy;

[d] separating each of the primary resolved beams of electromagnetic energy into two or more separate beams of electromagnetic energy, each of the separate beams of electromagnetic energy having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[e] absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of electromagnetic energy at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[f] altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[g] [i] combining the altered separate beams of electromagnetic energy of the primary first resolved beam of electromagnetic energy into a first single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic

wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy, and

[ii] combining the altered separate beams of electromagnetic energy of the primary second resolved beam of electromagnetic energy into a second single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy; and

[h] [i] resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] resolving from the second single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors.

509. (new) A method as described in claim 508 wherein step [a] includes providing a substantially collimated primary beam of electromagnetic energy.

510. (new) A method as described in claim 508 wherein step [a] includes providing a primary beam of electromagnetic energy having a rectangular cross sectional area.

511. (new) A method as described in claim 508 further comprising the step of passing at least one of the resolved beams of electromagnetic energy from step [g] to a projection means.

512. (new) A method as described in claim 508 further comprising the step of passing one of the resolved beams of electromagnetic energy from step [g] [i] to a first side of a projection means and passing one of the resolved beams of

electromagnetic energy from step [g] [ii] to a second side of said projection means.

513. (new) A method as described in claim 508 further comprising the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

514. (new) A method as described in claim 513 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

515. (new) A method as described in claim 513 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the magnitude of at least one of the separate beams of electromagnetic energy.

516. (new) A method as described in claim 508 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of electromagnetic energy has the electromagnetic spectrum different from the other separate beams of electromagnetic energy.

517. (new) A method as described in claim 516 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of electromagnetic energy has a predetermined range of wavelengths different from the other separate beams of electromagnetic energy.

518. (new) A method as described in claim 516 further comprising the step of adjusting the magnitude of at least one of the separate beams of electromagnetic energy from step [d].

519. (new) A method of producing a modulated beam of light, comprising:

[a] providing a primary beam of light having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electric field vectors;

[b] resolving the primary beam of light into a primary first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of the electric field vectors and a primary second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of the electric field vectors;

[c] rotating the second selected predetermined orientation of a chosen component of the electric field vectors of the primary second resolved beam of light to be substantially the same as the first selected predetermined orientation of a chosen component of the electric field vectors of the primary first resolved beam of light;

[d] separating each of the primary resolved beams of light into two or more separate beams of light, each of the separate beams of light having a selected predetermined orientation of a chosen component of electric field vectors;

[e] absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[f] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing each of the separate beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[g] [i] combining the altered separate beams of light of the primary first resolved beam of light into a first single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light, and

[ii] combining the altered separate beams of light of the primary second resolved beam of light into a second single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light; and

[h] [i] resolving from the first single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] resolving from the second single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors.

520. (new) A method as described in claim 519 wherein step [a] includes providing a substantially collimated primary beam of light.

521. (new) A method as described in claim 519 wherein step [a] includes providing the primary of light having a rectangular cross sectional area.

522. (new) A method as described in claim 519 further comprising the step of passing at least one of the resolved beams of light from step [g] to a projection means.

523. (new) A method as described in claim 519 further comprising the step of passing one of the resolved beams of light from step [g] [i] to a first side of a projection means and passing one of the resolved beams of light from step [g] [ii] to a second side of said projection means.

524. (new) A method as described in claim 519 further comprising the step of adjusting the light spectrum of at least one of the separate beams of light.

525. (new) A method as described in claim 524 wherein the step of adjusting the

electromagnetic spectrum of at least one of the separate beams of light includes adjusting the predetermined range of wavelengths of at least one of the separate beams of light.

526. (new) A method as described in claim 524 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of light includes adjusting a magnitude of at least one of the separate beams of light.

527. (new) A method as described in claim 519 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of light further has the light spectrum different from the other separate beams of light.

528. (new) A method as described in claim 527 wherein step [c] includes separating each of the primary resolved beams into two or more separate beams in which each of the separate beams of light has a predetermined range of wavelengths different from the other separate beams of light.

529. (new) A method as described in claim 527 further comprising the step of adjusting the magnitude of at least one of the separate beams of electromagnetic energy from step [d].

530. (new) A system of producing a modulated beam of electromagnetic energy, comprising:

[a] means for providing a primary beam of electromagnetic energy having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electromagnetic wave field vectors;

[b] means for resolving the primary beam of electromagnetic energy into a primary first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors and a primary second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors;

[c] means for rotating the second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors of the primary second resolved beam of electromagnetic energy to be substantially the same as the first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors of the primary first resolved beam of electromagnetic energy;

[d] means for separating each of the primary resolved beams of electromagnetic energy into two or more separate beams of electromagnetic energy, each of the separate beams of electromagnetic energy having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors;

[e] means for absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of electromagnetic energy at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[f] means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[g] [i] means for combining the altered separate beams of electromagnetic energy of the primary first resolved beam of electromagnetic energy into a first single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy, and

[ii] means for combining the altered separate beams of electromagnetic energy of the primary second resolved beam of electromagnetic energy into a second single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen

component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy; and

[h] [i] means for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and

[ii] means for resolving from the second single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors.

531. (new) A system as described in claim 530 in which the means for providing a primary beam of electromagnetic energy includes means for providing a substantially collimated beam of electromagnetic energy.

532. (new) A system as described in claim 530 in which the means for providing a primary beam of electromagnetic energy includes means for providing the initial beam of electromagnetic energy having a rectangular cross sectional area.

533. (new) A system as described in claim 530, further comprising means for passing at least one of the resolved beams of electromagnetic energy from step [g] to a projection means.

534. (new) A system as described in claim 530 further comprising means for passing one of the resolved beams of electromagnetic energy from step [g] [i] to a first side of a projection means and passing one of the resolved beams of electromagnetic energy from step [g] [ii] to a second side of said projection means.

535. (new) A system as described in claim 530 further comprising means for adjusting an electromagnetic spectrum of at least one of the separate beams of

electromagnetic energy.

536. (new) A system as described in claim 535 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

537. (new) A system as described in claim 535 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a magnitude of at least one of the separate beams of electromagnetic energy.

538. (new) A system as described in claim 530 wherein the separating means includes means for separating the beams in which each of the separate beams of electromagnetic energy has an electromagnetic spectrum different from the electromagnetic spectrum of each of the other separate beams of electromagnetic energy.

539. (new) A system as described in claim 538 wherein the separating means includes means for separating the beams in which each of the separate beams of electromagnetic energy has a predetermined range of wavelengths different from a predetermined range of wavelengths of each of the other separate beams of electromagnetic energy.

540. (new) A system as described in claim 538 further comprising means for adjusting a magnitude of at least one of the separate beams of electromagnetic energy.

541. (new) A system of producing a modulated beam of light, comprising:

[a] means for providing a primary beam of light having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electric field vectors;

[b] means for resolving the primary beam of light into a primary first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of the electric field vectors and a primary second resolved

beam of light having substantially a second selected predetermined orientation of a chosen component of the electric field vectors;

[c] means for rotating the second selected predetermined orientation of a chosen component of the electric field vectors of the primary second resolved beam of light to be substantially the same as the first selected predetermined orientation of a chosen component of the electric field vectors of the primary first resolved beam of light;

[d] means for separating each of the primary resolved beams of light into two or more separate beams of light, each of the separate beams of light having a selected predetermined orientation of a chosen component of electric field vectors;

[e] means for absorbing a portion of electromagnetic energy of at least one of the two or more separate beams of light at a beam stop, wherein the portion being absorbed is dependent upon the wavelength of the at least one beam;

[f] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing each of the separate beams of light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[g] [i] means for combining the altered separate beams of light of the primary first resolved beam of light into a first single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light, and

[ii] means for combining the altered separate beams of light of the primary second resolved beam of light into a second single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light; and

[h] [i] means for resolving from the first single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, and

[ii] means for resolving from the second single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors.

542. (new) A system as described in claim 541 in which the means for providing a primary beam of light includes means for providing a substantially collimated beam of light.

543. (new) A system as described in claim 541 in which the means for providing a primary beam of light includes means for providing the initial beam of light having a rectangular cross sectional area.

544. (new) A system as described in claim 541 further comprising means for passing at least one of the resolved beams of light from step [g] to a projection means.

545. (new) A system as described in claim 541 further comprising means for passing one of the resolved beams of light from step [g] [i] to a first side of a projection means and passing one of the resolved beams of light from step [g] [ii] to a second side of said projection means.

546. (new) A system as described in claim 541 further comprising means for adjusting an electromagnetic spectrum of at least one of the separate beams of light.

547. (new) A system as described in claim 546 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of light includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of light.

548. (new) A system as described in claim 546 wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of light includes means for adjusting a magnitude of at least one of the separate beams of light.

549. (new) A system as described in claim 541 wherein the separating means includes means for separating the beams in which each of the separate beams of light has an light spectrum different from the light spectrum of each of the other separate beams of light.

550. (new) A system as described in claim 549 wherein the separating means includes means for separating the beams in which each of the separate beams of light has a predetermined range of wavelengths different from a predetermined range of wavelengths of each of the other separate beams of light.

551. (new) A system as described in claim 549 further comprising means for adjusting the magnitude of at least one of the separate beams of light.